

KUZENTSOVA, Z.I.; IVANOVA, V.S.; SHORYGINA, N.N.

Reaction of dialcohol cellulose with nitrogen oxides. Izv. AN
SSSR. Ser. khim. no. 9:1682-1684 '65. (MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

BRONKHORST, G.J.; CHURKINA, N.N.; CHIKHVA, I.I.

Carbonylization of 2,3,4-tri-O-methyl-1,6-dideoxyglucopyranose by
the action of metallic sodium in pyridine medium. Izv. AN SSSR. Ser.
(MIRA 18:10)
khim. no.10:1870-1872 '65.

1. Institute organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

SHOKYGINA, N.N.; SDYKOV, T.S.; KOSHETEROV, A.K.

Study of lignins of *Phragmites communis* Trin. Khim. prirod. soed. no.6:424-427 '65. (MIRA 19:1)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR i Karakalpakskiy filial AN UzSSR.

L 37210-66 EWT(m)/EWP(j)/T MM/JW/JWD

ACC NR: AP6014411

(A) SOURCE CODE: UR/0062/66/000/004/0743/0746

AUTHOR: Kuznetsova, Z. I.; Ivanova, V. S.; Shorygina, N. N.ORG: Institute of Organic Chemistry im. N. D. Zelinskiy Academy of Sciences SSSR (Institut organicheskoy khimii Akademii nauk SSSR)TITLE: Reaction of cellulose dialdehyde with gaseous nitrogen oxides //

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 4, 1966, 743-746

TOPIC TAGS: cellulose, nitration, oxidation, nitrate ester

ABSTRACT: The reaction of cellulose dialdehyde with nitrogen oxides in the presence of P_2O_5 was investigated. Without P_2O_5 , cellulose dialdehyde is only oxidized by N_2O_4 ; in the presence of P_2O_5 , oxidation, oxidation-nitration, or then essentially only nitration products are obtained as the weight ratio of P_2O_5 :cellulose dialdehyde is increased from 0:1 to 400:1. The trinitrate of cellulose dialdehyde was obtained and its structure proposed. Orig. art. has: 2 tables and 2 equations.

SUB CODE: 07/ SUBM DATE: 13Aug65/ ORIG REF: 006/ OTH REF: 001

Card

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UDC: 547.458.81

S/S12/61/000/005/005/005

AUTHORS: Shorygina, N. V., Candidate of Technical Sciences, Zarubitskiy, A. Ye.,
Engineer.

TITLE: Production of shale and oil-shale resin-tars.

SOURCE: Akademiya stroitel'stva i arkhitektury SSSR. Institut novykh
stroitel'nykh materialov. Sbornik trudov. no.5. 1961. Novyye
stroitel'nyye polimernyye materialy. pp. 99-107.

TEXT: The paper reports an investigation of the effect of the acid and neutral components of shale oil on the physico-mechanical properties of shale-formaldehyde resin obtained from shale oil and formalin. It is established that the acid component of the shale oil, which consists primarily of phenol, reduces the elasticity, strength, and water-resistance of the resin. Initial materials used in making experimental specimens: (1) Generator shale oil of the shale-refining Kombinat at Kokhtlya-Yarva with a spec. grav. 1.015, water content 1%, viscosity 2.9°E at 75°C, flash point 90°, ash content 0.3%, S content 1.2%. (2) Shale gudron (asphalt flux) retained in the residue after boiling off of all generator-oil fractions up to 325° with a ball-and-ring softening T of 27°. (3) Petroleum gudron with a softening T of 40°, a ductility of 51 cm, and a viscosity at 60° of 159 sec as measured in a

Card 1/3

Production of shale and oil-shale resin-tars.

5/81?/61/000/005/005/005

viscosimeter with a 5-mm-diam aperture. (4) Formalin of the Kuskovo Chemical Plant, containing 39.5% formaldehyde, 7.8% methyl alcohol, 0.03% acids (as expressed in formic acid). The resin was prepared in an electrically-heated 2-liter steel flask equipped with a thermometer compartment, a charging door, a mechanical mixer, and a cooler, and in a similarly equipped 10-liter reactor. To separate the acid and neutral compounds from the shale-oil resins, the oil was dissolved in benzol (1:1) and the solution was mixed with a 5% NaOH solution (1:1). Upon stirring and settling, a lower phenolate-containing layer separated from an upper layer containing the neutral and other compounds. The phenolate was acidulated by a 5% HCl solution and was washed with water. The separated acid compounds were dried for condensation with formaldehyde (yield of acid part: 15%). The neutral and other compounds were washed with water and dried for condensation with formaldehyde. The elasticity, strength, and 24-hr water resistance (at 20°C) of the acid- and neutral-compound-containing resins are tabulated in detail. Copolymerization of (a) shale and petroleum gudrons not containing phenols with (b) shale oil containing phenols, with formalin treatment of the mixture, yields resins that exhibit an elevated softening T, elasticity, impact strength, and water-resistance (details on both composition and characteristics are tabulated). The components were charged into the above-described flask or reactor and were condensed for 2 hrs at 85-90°, whereupon the resin obtained was dried at 95-105°.

Card 2/3

Production of shale and oil-shale resin-tars.

S/812/61/000/005/005/005

(2 hrs) and then heated in two stages, namely, for 3 hrs at 150-160° and for 10 hrs at 210-220°. The resin yield was 95.4%. Optimal composition in parts of weight: Shale asphalt flux 50, shale oil 50, 39.5% formalin 5, HCl (spec. grav. 1.19) 1, chlore iron 1. The principal characteristics of the optimal composition are listed. An increase in shale oil reduces the softening T, hardness, and impact strength; a reduction accomplishes the opposite. The shale-formaldehyde resins are acid-, salt-, alkali-, and ether-resistant, and are thermoplastic, but are soluble in turpentine, gasoline, benzol, toluol, and xylol. The material thus produced eliminates the need for expensive and not readily available lamination plastifiers for the making of flooring, roof sheathing, and roofing materials by the roll. The same resins are also suitable for the making of mastics, heat-insulation, and other materials. There are 3 numbered (and numerous unnumbered) tables; no figures or references.

ASSOCIATION: None given.

Card 3/3

KOSHKIN, V.G., kand. tekhn. nauk; MAKOTINSKIY, M.P., kand. arkh.; MUNTS, V.O., kand. arkh.; RUDINA, M.A., arkh.; SILUANOVA, G.V., arkh.; SHORYGINA, N.V., kand. khim. nauk. Prinimali uchastiye: BOGUSLAVSKIY, A.I., inzh.; ZARUBITSKIY, A.Ye., inzh.; LIVSHITS, A.M., inzh.; MASHINA, N.N., inzh.; OTLIVANCHIK, A.N., kand. tekhn. nauk; ROMANOVA, L.A., inzh.; CHERKINSKIY, Yu.S., inzh.; ANDREYEV, V.S., retsenzent; IOFAN, B.M., retsenzent; KRIPPA, A.I., arkh., retsenzent; GURVICH, E.A., red.izd-va; BRUSINA, L.N., tekhn. red.

[Catalog of finishing materials and articles] Katalog ot-delochnykh materialov i izdelii. Pod red. M.P.Makotinskogo. Moskva, Gosstroizdat. Pt.1.[Plastics; polymer finishing materials and articles] Plastmassy; polimernye otdelochnye materialy i izdeliia. 1962. 119 p. (MIRA 16:4)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Andreyev, Iofan, Krippa).

(Finishes and finishing--Catalogs) (Plastics)

ca

Polymerization ability of substituted styrenes in relation to their structure. P. P. Shorogin and N. V. Shorogina, *J. Gen. Chem. (U. S. S. R.)*, 5, 565-61 (1935).—Study of the polymerization ability of unsatd. hydrocarbons in relation to their structure, isomerism and the properties of the polymers was begun with the substituted styrenes. Ph-CH=CH_2 (I), obtained from pure $\text{PhCH}_2\text{CH}_2\text{OH}$ (II) (cf. Shorogin *et al.*, *C. A.* 36, 1205), is easily polymerized. II, prep'd. from impure $(\text{CH}_3)_2\text{O}$, derived from the C_6H_6 obtained in the cracking of petroleum, contains higher homologs (oxides of C_6H_6 , C_6H_5 , etc.) and gives I contaminated with styrenes substituted in the side chain incapable of polymerization. It is assumed that the substitution results in the formation of PhCMe:CH_2 (III) and

PhCH:CHMe (IV); $\text{PhMgCl} + \text{CH}_2\text{O.CHMe} \rightarrow \text{PhCH}_2\text{CHMe}$
 $\text{MeCH}_2\text{OMgCl} \rightarrow \text{PhCHMeCH}_2\text{OH} \rightarrow \text{III}; \text{PhMgCl} +$
 $\text{CH}_2\text{O.CHMe} \rightarrow \text{PhCH}_2\text{CH(OMgCl)Me} \rightarrow \text{PhCH}_2\text{CH(OH)Me} \rightarrow \text{IV}.$ Staudinger and Breusch (*C. A.* 23, 3213) showed that I substituted in the side chain, *e. g.*, III, is incapable of polymerization. It was of interest to learn whether a Me group in the nucleus of I has also an influence on its polymerization ability. The comparative tests

were made with pure and impure I and with *o*- (V), *m*- (VI) and *p*-MeC₆H₄CH₂CH₂ (VII) and *o*-C₆H₅CH₂CH₂ (VIII). For the prepn. of the styrenes and VIII, the Grignard solns. obtained from PhBr, *o*- and *m*-MeC₆H₄Br, *p*-MeC₆H₅Br and *o*-C₆H₅Br, resp., were slowly treated, with ice cooling, with 0.7 mol. of (CH₃)₂O in C₆H₆; after standing for 12 hrs. the reaction mixts. were decompd. with

culated H_2O , the aks. were extd. with Et_2O , the Et_2O was expelled and the aks. redistd. ρ - $\text{MeC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{OH}$ (IX) and α - $\text{C}_6\text{H}_5\text{CH}_2\text{CH}_2\text{OH}$ (X) were purified with CaCl_2 . II, b, 95%; ρ - $\text{MeC}_6\text{H}_4\text{CH}_2\text{CH}_2\text{OH}$, b, 100.5-2°; α - $\text{C}_6\text{H}_5\text{CH}_2\text{CH}_2\text{OH}$, b, 100°; IX, b, 244.5-2°, and X, m. 62°, b, 182-3°. II was obtained with 10% yield (bitolyl) was the chief reaction product) and the other aks. with 32-58% yield. The aks. introduced dropwise into KOH in a Cu flask at 212-15° gave the styrenes. X was used in a melted state. Pure I, b, 33-4°, d_4^{20} 0.9223, n_D^{20} 1.5446, M. R. 36.81 (found), M. R. 35.07 (calcd.), exaltation 1.74; impure I, b, 32-3°, d_4^{20} 0.9058, n_D^{20} 1.5445, M. R. 35.26 (found), exaltation 1.9; V, b, 51°, d_4^{20} 0.8912, n_D^{20} 1.5425, M. R. 41.72 (found), M. R. 39.6 (calcd.), exaltation 2.12; VI, b, 52-3°, d_4^{20} 0.9044, n_D^{20} 1.5414, M. R. 40.94 (found), M. R. 39.6 (calcd.), exaltation 1.34; VII, b, 51°, d_4^{20} 0.8974, n_D^{20} 1.5395, M. R. 41.22 (found), M. R. 39.6 (calcd.), exaltation 2.12, and VIII, b, 116-17°, d_4^{20} 1.0439, n_D^{20} 1.6425, M. R. 53.35 (found), M. R. 50.41 (calcd.), exaltation 2.94 (cf. Palfrey, Sabetay and Sontag, *C. A.* **26**, 4325). The styrenes and VIII were polymerized under exactly similar

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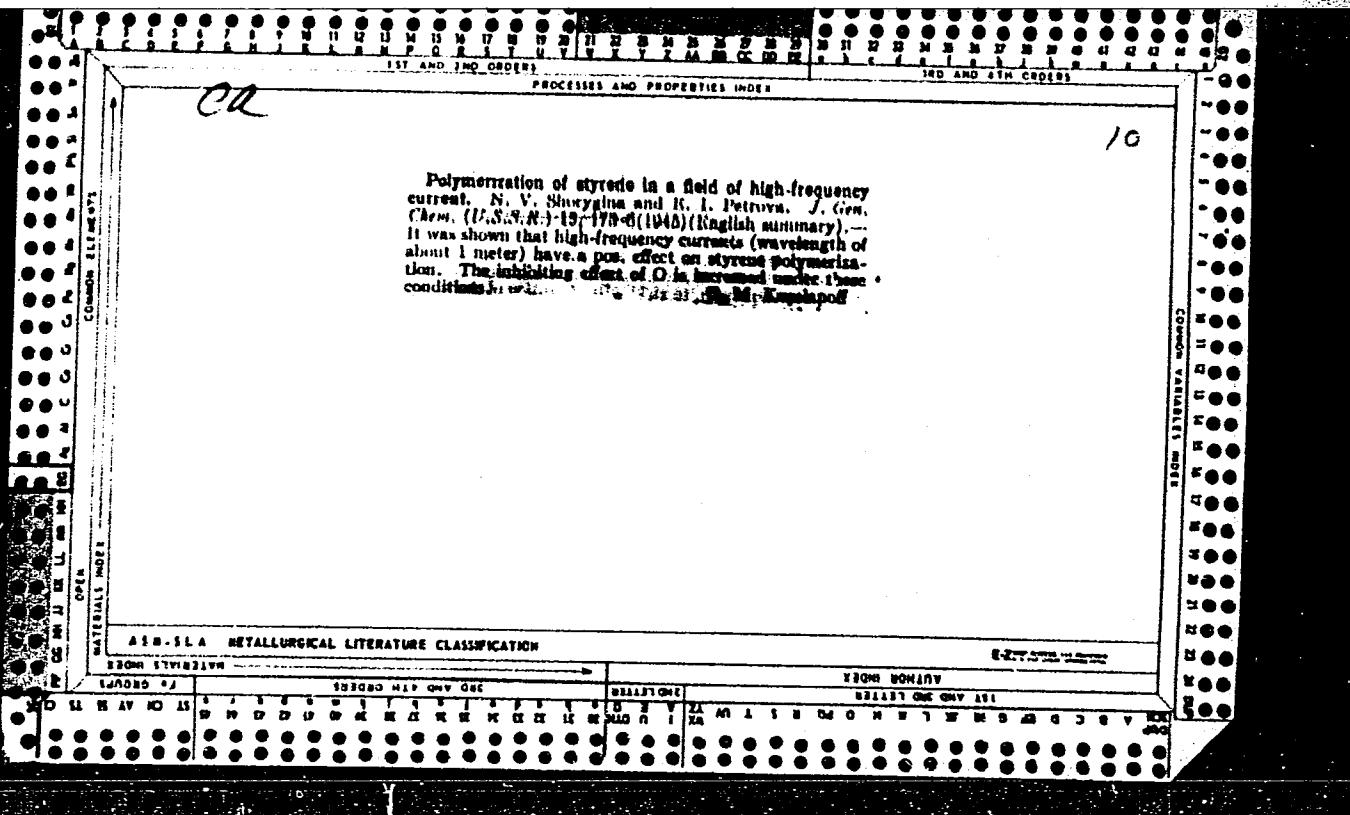
conditions by heating the products (no catalyst) in glass tubes at 175° for 3 hrs. in a drying oven. The thermal resistance of the polymers was detd. (approx.) from the temp. of softening and melting in a capillary tube. The relative viscosities were detd. with 2% solns. in C_6H_6 and $PhMe$ at various temps. in an Ostwald viscometer. The values for the sp. viscosity, molarity of the solns. and mol. wt. of the polymers were calcd. by the Staudinger formula (*Heckmol. org. Verbindungen*, *C. A.* 26, 3513). The results show that the phys. properties of the polymers are directly related to the coeffs. of polymerization. Thus, the elasticity, mech. stability and resistance to heat of the following polymers decrease in the order given (the coeffs. of polymerization are given in parentheses): V (274), VI (256), pure I (245), VII (180), impure I (150) and VIII (30). It may be concluded that with the increase of the elongation of the side groups in the chain of the polystyrenes (the greatest elongation with VII) and a considerable increase in their weight (C_6H_5 nucleus) the polymerization ability of styrene is decreased and the properties of the polymers are impaired. Only the Me group in the *o*-position acts differently. Chas. Blanc

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Polymerization ability of substituted styrenes in relation to their structure. II. P. P. Shorygin and N. V. Shorygina. *J. Gen. Chem. (U. S. S. R.)* 9, 845-64 (1939); cf. *C. A.* 29, 6885. — *p*-Bromotoluene, obtained from *p*-toluidine, was oxidized with CrO_3Cl_2 in CS_2 to $\text{BrC}_6\text{H}_4\text{CHO}$, which was condensed with MeMgI in Et_2O to give *p*- $\text{MeCH(OH)C}_6\text{H}_4\text{Br}$ (I), b_2 145°, d^2 1.379, n_D^2 1.562. *p*- $\text{BrC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 102-4°, d^2 1.408, n_D^2 1.580, was obtained from I on heating with KHSO_4 at 130-40° for 4 hrs. *p*- $\text{BrC}_6\text{H}_4\text{CH}_2\text{CH}(\text{OH})\text{CH}_3$, obtained in a similar way from *p*- $\text{MeC}_6\text{H}_4\text{NH}_2$, b_2 128°, d^2 1.406, n_D^2 1.566. *p*- $\text{BrC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 102-4°, d^2 1.400, n_D^2 1.562. *p*- $\text{MeOC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 104°, d^2 1.0015, n_D^2 1.560. *p*- $\text{MeOC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 85°, d^2 1.009, n_D^2 1.556. *p*- $\text{H}_2\text{NC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 125.7°, d^2 1.0210, n_D^2 1.619. *p*- $\text{H}_2\text{NC}_6\text{H}_4\text{CH}_2\text{CH}_3$, b_2 102-4°, d^2 1.015, n_D^2 1.608. $\text{PhC}_6\text{H}_4\text{CH}_2$, b_2 67.8°, d^2 1.425, n_D^2 1.591. PhCH_2CHBr , b_2 108°, d^2 1.402, n_D^2 1.605. $\text{C}_6\text{H}_5\text{CH}_2\text{CH}_2\text{CH}_3$, b_2 126.8°, d^2 0.818, n_D^2 1.4475. $\text{C}_6\text{H}_5\text{CH}_2\text{CH}_2\text{CH}_3$, b_2 122-3°, d^2 0.7271, n_D^2 1.4165. Ph_2 (II) was nitrated by means of HNO_3 in AcOH or of N_2O_4 . In the latter case 50 g. II was treated with 200 g. N_2O_4 in the cold and the mixt. of *o*- and *p*- $\text{NO}_2\text{C}_6\text{H}_4\text{Ph}$ (III) sepd. by fractional crystn. III, m. 112.1°, was obtained in a yield of 45%. *p*- $\text{H}_2\text{NC}_6\text{H}_4\text{Ph}$, from III on reduction with Sn and HCl , yielded *p*- $\text{IC}_6\text{H}_4\text{Ph}$, m. 110-11°, b. 180°, which gave $\text{PhC}_6\text{H}_4\text{MgI}$. The latter compd. was condensed with ethylene oxide in C_6H_6 to yield *p*- $\text{HOCH}_2\text{CH}_2\text{C}_6\text{H}_4\text{Ph}$, m. 93.4°. The study of the thermal polymerization of substituted styrenes at 100° and 170° in the absence of cata-

lysts revealed that substituents in the α - and β -positions exerted a hindering influence on the polymerization ability. This ability decreases with increasing mol. wt. and length of the aromatic residue attached to the ethylene mol. The polymerization is accelerated at elevated temp. but simultaneously the degree of polymerization is decreased.

Gertrude Berend



SHORYGINA, N. V.

"The condensation of ethylene oxide with benzene homologues." (p. 1273)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Vol 21, No 7.

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10

The condensation of ethylene oxide with benzene homologs. N. V. Shorygina. *J. Gen. Chem. U.S.S.R.* 21, 1391-30 (1951) (Engl. translation). — See *C.A.* 46, 29482 B, R.

SHUB, I. Ye., kandidat tekhnicheskikh nauk; SHORYGINA, N. V., kandidat khimicheskikh nauk; KANTOR, P. I., inzhener.

Gluing together the two halves of the shell mold. Lit. proizv.
no. 11:2-5 N '56. (MIRA 10:1)
(Shell molding (Founding)) (Gluing)

SHORYGINA, N. D.

*✓ Cyclic acetals. I. Condensation of styrene and its homologs with aldehydes in the presence of hydrochloric acid and reactions of 4-phenyl-1,3-dioxane with thionyl chloride, phosphorus pentachloride and aliphatic acids. N. V. Shorygina. Zhur. Obrabotki Khim. 26, 1460-5 (1956).—Heating 1 mole PhCH₂CH₃ or homolog with 2.5 moles aldehyde and 10 ml. concd. HCl 8-7 hrs. on a steam bath gave the following: 90-8% 4-phenyl-1,3-dioxane, *b*₄ 118-20°, *d*₄ 1.1110, *n*_D 1.5331; 70-80% 4-phenyl-2,6-dipropyl-1,3-dioxane, *b*₄ 175-6°, 1.0160, 1.4680; 90-5% 4-p-iodyl-1,3-dioxane, *b*₄ 145-7°, 1.080, 1.5231. These heated with 1:2 HCl 2-3 hrs. gave: 4-phenyl-3-chloro-1-propanol (I), *t*₄ 110-12°, 1.1479, 1.5689; 4-phenyl-1-chloro-3-hexanol, *b*₄ 128-35°, 1.0462, 1.5160; 3-p-iodyl-1-chloro-1-propanol, *b*₄ 118-20°, 1.0634, 1.5540. Heating 85 g. I with 50 ml. 26% formalin and 5 ml. HCl 1 hr. gave 98% 4-phenyl-1,3-dioxane. This (100 g.) added to 200 g. SOCl₂ and heating 1 hr. at 50° gave I; 4-phenyl-1,3-dichloropropane (II), *b*₄ 111-13°, 1.770(sic), 1.5485, formed when ZnCl₂ was added to the SOCl₂. Reaction of 4-phenyl-1,3-dioxane (40 g.) with 104 g. PCl₅ in CCl₄ under 50° gave 95% II. Heating 17 g. I with 14 g. urotropine and 25 ml. EtOH finally at 60° 1 hr. gave, after aq. treatment an oily material which yielded the *p*-nitrophenylhydrazone of 4-phenyl-3-propanol-1-one, *m*. 176-7°; semicarbazone, *m*. 194-5°. Heating 4-phenyl-1,3-dioxane with Ac₂O and a little concd. HCl 5 hrs. gave 80-6% 4-phenyl-1,3-propanediol diacetate, *b*₄ 154-0°, *d*₄ 1.0467, *n*_D 1.4929, which with 18% aq. NaOH in 4 hrs. gave 58-65% free diol, *b*₄ 156-5°, *d*₄ 1.1155, *n*_D 1.5417. Refluxing 164 g. 4-phenyl-1,3-dioxane with 176 g. PrCO₂H, 200 ml. xylene and 3 g. *p*-MeC₆H₄SO₃H with azeotropic removal of H₂O 12 hrs. (6 hrs. if the sulfonic acid is replaced by sulfonated ion-exchange resin) gave 70% 4-phenyl-1,3-propanediol dibutylate, *b*₄ 171-80°, *d*₄ 1.0351, *n*_D 1.5042.*

G. M. Kosolapoff

SHORYGINA, N. V.

Cyclic acetals. I. Condensation of styrene and its homologs with aldehydes in the presence of hydrochloric acid and reactions of 4-phenyl-1,3-dioxane with thionyl chloride, phosphorus pentachloride and aliphatic acids. N. V.

Shorygina, J. Russ. Chem. U.S.S.R. 26, 1643-7 (1950).
(English translation, C.A. 44, 14703g. B.M.R.)

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Resin from aniline, formaldehyde and phenol. N. V. Shcherygina and D. F. Kagan. U.S.S.R. 104,911, Mar. 25, 1951. The water and heat resistance of the product produced by condensation of the two compds. is improved by carrying out the condensation in the presence of 4-phenyl-1,3-dioxane. In the 1st stage this compd. acts as a solvent and in the 2nd stage as an active reactant. M. Hirsch.

~~SHORYGINA, N.V., kandidat khimicheskikh nauk.; OTLIVANCHIK, A.N., kandidat~~
~~tekhnicheskikh nauk.~~

The use of phenolic resins as binding materials. Del prom. 6 no.2:
15-16 F '57. (MLRA 10:4)
(Gums and resins, Synthetic) (Binding materials)

SHORYGINA, N. V.

15

Synthesis of xylene-formaldehyde resins. I. Condensation of xylene in the presence of an acid catalyst. N. V. Shorygina and G. I. Kurnikina. *Zhur. Priklad. Khim.* 31, 447 (1958).—Condensation of tech. xylene with HCHO without the addn. of cryst. PhOH was affected by equalization of the reaction rates of the different xylene isomers: (a) by lowering the initial temp. to 70°, (b) by adding the catalyst in 2 stages, and (c) by neutralization of the acid catalyst before dehydration of the finished resin. The reaction is continued 1 hr. at the initial pH of 3.5. Acid is added to reduce the pH to 1 and the resin is heated an hr. to boiling, the acid is neutralized with 40% NaOH, and the resin dried *in vacuo* at 120–35°. A 100% yield of a resin with a hardening rate of 50–90 sec. was obtained. [L.B.]

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SHORYGINA, N.V.; KUROCHKINA, G.I.

Condensation of xyleneols in the presence of alkaline catalysts.
Zhur. prikl. khim. v. 31 no.5:810-813 My '58. (MIRA 11:6)
(Condensation products (Chemistry)) (Xyleneols)

SHORYGINA, N.V., kand.khim.nauk; KUROCHKINA, G.I., inzh.; KOZEL'TSEV, L.I., inzh.

Resins based on composite phenols and their use in making particle board. Stroi.mat. 5 no.12:22-24 D '59.

(MIRA 13:3)

(Gums and resins, Synthetic) (Wood, Compressed)

5.3400

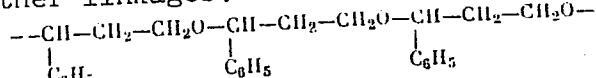
77539
SOV/80-33-1-48/49

AUTHORS: Shorygina, N. V., Chernov, A. G.

TITLE: Brief Communications. Synthesis of Copolymers of Styrene With Formaldehyde. Communication II, From the Series of Investigations of Cyclic Acetals

PERIODICAL: Zhurnal prikladnoy khimii, 1960, vol 33, Nr 1, pp 251-253 (USSR)

ABSTRACT: Two copolymers of styrene and formaldehyde were prepared. The first copolymer was obtained by telomerization of one mole of styrene with two moles of formaldehyde. The elemental composition corresponds to the copolymer of styrene with formaldehyde in the ratio 1 to 1; the polymer contains 12% oxygen. The absence of other functional groups indicates a telomer with ether linkages.

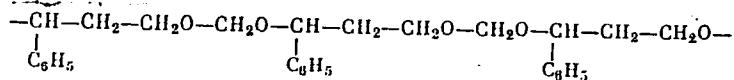


Card 1/4

Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II, From the Series of
Investigations of Cyclic Acetals

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The second copolymer was obtained by condensation of one mole of styrene with 3 moles of formaldehyde, and contains 18% oxygen. The elemental composition corresponds to a copolymer of styrene with formaldehyde in the ratio 4 to 7.



The second copolymer was used for the preparation of phenol-formaldehyde resins.

Card 2/4

Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II, From the Series of
Investigations of Cyclic Acetals

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SOV/80-33-1-48/49

The change of free phenol content in the condensation of styrene-formaldehyde copolymer with phenol.

α	β	α	β
0	63.3	160	42.3
20	55.95	190	42.41
50	48.25	230	42.40
80	44.95	260	40.59
130	44.38	300	41.3

a = Time from the start of reaction in min
b = free phenol content (in %)

From the above resin a powder was obtained which after pressing gave blocks with a heat resistance of over 300°, according to Martens. There are 2 tables; and 4 references, 1 Soviet, 3 U.S. The U.S. references are: J. W. Breitenbach, J. Phys. Chem., A.

Card 3/4

Brief Communications. Synthesis of
Copolymers of Styrene With Formaldehyde.
Communication II. From the Series of
Investigations of Cyclic Acetals

77539
SOV/30-33-1-48/49

187, 175 (1940); D. D. Coffman, J. Am. Chem. Soc.,
73, 4748 (1951); F. A. Bovey, *ibid*, 69, 2143
(1947).

SUBMITTED: May 9, 1959

Card 4/4

S/081/62/000/019/033/053
B101/B180

AUTHORS: Shorygina, N. V., Chernova, A. G.

TITLE: Naphthalene phenol formaldehyde resins and molding materials

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 511, abstract .
1964 (Izv. Akad. KirgSSR, Ser. yestestv. i tekhn. n., v. 3,
no. 2, 1961, 57-63 [summary in Kirg.])

TEXT: Formolites with softening point $\sim 80^{\circ}\text{C}$, readily soluble in benzene, poorly soluble in ethyl alcohol, and insoluble in petroleum ether, were obtained by condensing naphthalene (I) with formaldehyde (II) at molar ratios of 1:1, 1:1, 1:3, 1:4, and 1:5 in the presence of 45% sulfuric acid at $\sim 100^{\circ}\text{C}$ for 20-24 hrs. The elementary composition of the resin was found to depend on the I:II ratio, and the presence of acetal groups in the resin was proven. All the formolites were found to react with phenol, binding 23-54% of the latter. Reaction of formolite (synthesized from 1 mole of I and 4 moles of II) with phenol in the presence of HCl (acid) yielded a novolac resin with Ubbelohde drop point $90-110^{\circ}\text{C}$ and, Card 1/2

S/081/62/000/319/033/053

Naphthalene phenol formaldehyde resins ... B101/B160

on its basis, a molding material with a heat resistance of $\sim 400^{\circ}\text{C}$. The physical and mechanical properties of molding powders based on naphthalene phenol formaldehyde resin are given, and their variations on heating. [Abstracter's note: Complete translation.]

Card 2/2

15.8091

S/081/62/000/021/048/069
B162/B101AUTHORS: Shorygina, N. V., Chingyshbayev, D.TITLE: Resol styrene-phenol-formaldehyde resin "Stirolit P" (R)PERIODICAL: Referativnyy zhurnal. Khimiya, no. 21, 1962, 448-449,
abstract 21P17 (Izv. AN KirgSSR. Ser. yestestv. i
tekhn. n., v. 3, no. 2, 1961, 65-71 (summary in Kirg.)

TEXT: To obtain emulsion resol resin "Stirolit R" from the styrene-formaldehyde copolymer, condensation is effected at a ratio of phenol:formaldehyde 1:1, 1:0.75, 1:0.5, 1:0.25 at 120-130°C. It is found that the optimum is the ratio of 1:0.5, at which a high degree of interaction is obtained and the thermosetting properties of the resin are preserved. It is shown also, for the resin "Stirolit R" that the modulus of elasticity in the state of curing does not change up to 450°C.

[Abstracter's note: Complete translation.]

✓B

Card 1/1

SHORYGINA, N.V., kand.khim.nauk; ENFIADZHYAN, M.A., inzh.

Improving the permeability of seamless mastic floors. Stroi. mat. 7
no.2:34-35 F '61. (MIRA 14:3)
(Floors, Concrete) (Vinyl polymers)

SHORYGINA, N.V., kand.khim.nauk; CHERNOVA, A.G.; DERZHINSKIY, A.R.

Obtaining of phenanthrene phenol formaldehyde resins. Koks i khim.
no.10:43-46 '62. (MIRA 16:9)

1. Nauchno-issledovatel'skiy institut plastmass (for Shorygina, Cherno-
va). 2. Vostochnyy uglekhimicheskiy institut (for Derzhinskiy).
(Coke industry—By-products)
(Phenol condensation products)

SHORYGINA, N.V., kand.khimicheskikh nauk; ENFIADZHYAN, M.A., inzh.

Increasing the water resistance of polyvinyl acetate mastic
floors. Stroi. mat. 8 no.4:34-35 Ap '62. (MIRA 15:8)
(Mastic) (Floors)

L 54967-65 EWT(m)/EWP(j) PC-4 RM
ACCESSION NR: AP5012101 UR/0191/65/000/005/0008/0010
678.632

16

15

B

AUTHOR: Shorygina, N. V.; Zhilina, N. V.

TITLE: Studies of cyclic acetals. Phenolysis of polyvinyl butyral 9

SOURCE: Plastichekiye massy, no. 5, 1965, 8-10

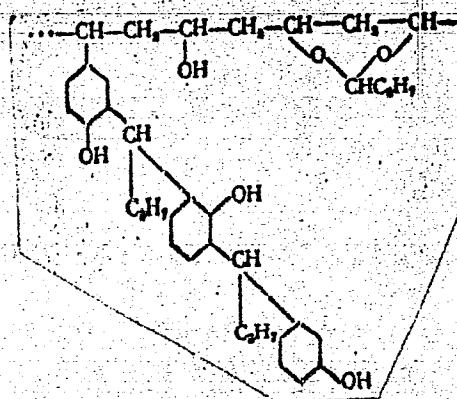
TOPIC TAGS: cyclic acetal, polyvinyl butyral, acetal phenolysis, phenol formaldehyde resol

ABSTRACT: The authors studied the influence of the initial amount of phenol on the extent of its reaction with polyvinyl butyral. When the amount of phenol in the initial mixture was raised from 32% to 78%, the amount of reacted phenol increased from 20% to 36% of the amount introduced; after 2.5-3 hrs, this amount ceased to change. A study of the influence of temperature on phenolysis showed that a change from 90 to 110°C was associated with an increase from 29.0 to 37.5% in the amount of reacted phenol. From a study made in the presence of excess phenol, it was concluded that three or more phenol groups add to each monomer unit in polyvinyl butyral. This is possible only in two cases: (1) growth of the side chains formed by the reaction of phenol with the butyraldehyde which splits off.

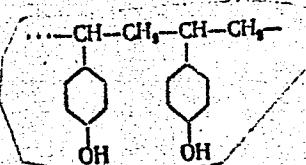
Card 1/3

L 54967-65

ACCESSION NR: AP5012101



(2) addition of two phenol groups to each butyral link:



2/3

Card

L 54967-65

ACCESSION NR: AP5012101

Phenol-modified polyvinyl butyral can be combined with phenol-formaldehyde resols; this improves their elastic properties and increases their strength characteristics owing to the presence of a greater number of cross-links than in pure polyvinyl butyral. Orig. art. has: 3 figures, 3 formulas and 2 tables.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 004

OTHER: 002

Card 3/3

L 52135-55 EPM(c)/EWP(j)/EWT(m) PC-L4/P2-L4 PM

ACCESSION NR: AP5015297

UR/0286/65/000/009/0066/0068

AUTHORS: Shorygina, N. V.; Pilyayeva, V. F.

TITLE: A method for obtaining formolites. Class 39, No. 170669

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 68

TOPIC TAGS: formolite, formaldehyde, inorganic acid, catalyst, anthracene, sulfuric acid, hydrochloric acid

ABSTRACT: This Author Certificate presents a method for obtaining formolites by condensing formaldehyde and a mixture based on anthracene, in the presence of an inorganic acid used as a catalyst. To simplify the production process and to diminish the amount of catalyst, a mixture of raw anthracene and anthracene oil is applied. This reaction may be conducted in the presence of sulfuric or hydrochloric acid.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific Research Institute of Plastics)

SUBMITTED: 05Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

Card 1/1 my

L 44179-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP0011234

SOURCE CODE: UR/0413/66/000/006/0074/0074

INVENTOR: Shorygina, N. V.; Ninin, V. K.; Soborovskiy, L. Z.; Bruker, A. B.; Raver, Kh. R.

ORG: none

TITLE: Method of obtaining fireproof and heat-resistant phenol-formaldehyde resins. Class 39, No. 179920

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 74

TOPIC TAGS: resin, phenolformaldehyde, organic phosphorus compound, fire resistant resin, heat resistant plastic

ABSTRACT: An Author Certificate has been issued for a method of obtaining fireproof and heat-resistant phenolformaldehyde resins by the modification of phenolformaldehyde and arylphenolformaldehyde resins with an organic phosphorus-containing compound and introducing it during the process of tar formation. To increase the fire and heat resistance of

Card 1/2

UDC: 678.632'0'21:678.85

SHOSELOVA, Valentina, inzh.

Some studies of the electrohydraulic effect. Elektroenergiia 13
no.7:9-11 J1 '62.

L 60883-65

ACCESSION NR: AR5015899

UR/0299/65/000/009/4020/M020

616.003.93

5

B

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 9M112

AUTHOR: Shoshas, I. I.

TITLE: Plastics in alloplasty of abdominal hernia

CITED SOURCE: Tr. 10 S"yezda khirurgov USSR, 1962. Kiyev, Gosmedizdat USSR, 1964, 470-472

TOPIC TAGS: surgery, abdominal surgery, alloplasty, hernioplasty, implantation, caprone

TRANSLATION: In abdominal hernioplasty, caprone gauze of various mesh was used as the alloplastic material. The size of the implant averaged 10 x 6 cm. In post-operative, relapsing, and larger hernias the implant ranged from 18 to 1200 cm². After 5 days the implant was intergrown with connective tissue, and the wound had healed by secondary union in all of the patients. No sequestration was observed. The healing of the wounds did not essentially depend on the character of the alloplastic material. Over a period of 36 months following surgery no relapses were noted. N.S.

Card 1/2

L 60883-65

ACCESSION NR: AR5015899

SUB CODE: IS, MT

ENCL: 00

jk
Card 2/2

SHOSHENKO, K. A.

SHOSHENKO, K. A. -- "Compensatory Adaptation of the Central Nervous System after Section of the Anterior Half of the Spinal Cord in Birds." Second Moscow State Med Inst imini I. V. Stalin, Moscow, 1955. (Dissertations for the Degree of Candidate of Medical Sciences)

So: Knizhnaya Letopis: No. 39, 24 Sept 55

SHOSHENKO, K.A.

Fatigue in pigeons and chickens after transection of the ventral and lateral portions of the spinal cord. Fiziol.zhur. 47 no.2: (MIRA 14:5) 247-252 F '61.

1. From the Physiology and Pharmacology Chair of the Pharmaceutical Institute, Piatigorsk.
(SPINAL CORD) (FATIGUE)

NIKIFOROVA, S.F.; SHOSHENKO, K.A.

Structure and development of the capillary bed in the skin of the
frog. Arkh. anat., gist. i embr. 47 no.9:92-98 S '64.
(MIRA 18:11)

1. Kabinet mikrofiziologii (zav. - kand.med.nauk K.A.Shoshenko)
Instituta tsitologii i genetiki Sibirskogo otdeleniya AN SSSR,
Novosibirsk. Submitted Sept. 21, 1963..

NIKIFOROVA, S.F.; SHOSHENKO, K.A.

Some principles of the structure and function of the capillary bed.
Biul. eksp. biol. i med. 59 no.2:25-29 F '65.

(MIRA 18:7)

1. Kabinet mikrofiziologii (zav. - K.A. Shoshenko) otdela eksperimental'noy biologii i patologii (zav. B.B. Fuks) Instituta tsitologii i genetiki (dir. D.K. Belyayev) Sibirskogo otdeleniya AN SSSR, Novosibirsk.

PETROV, V.V.; BRODSKIY, M.V.; SHOSHENKOV, V.D.

Basis for the selection of a system of automatic channel
switching of radio links. Elektrosviaz' no.11:25-33 N '56.
(MLRA 9:12)

(Radio relay systems)

PAGE 1 BOOK INFORMATION

BOY/SHB7

USSR. Ministerstvo sverzhi. Tekhnicheskaya spravka
 Novye apparatura elektronnyi i elektronnaya informatsionnyi sbornik.
 (New Electro-Communication and Power Supply Equipment Collection of
 Information) Moscow, Sverzhi, 1959. 100 p. (Seriya: Tekhnika svyazi)
 13,500 copies printed.

Resp. Ed.: V.A. Lipchits; Znch.: Ye.S. Morozova and N.M. Mandrikina;
 Tech. Ed.: S.P. Karzhilova.

PURPOSE: This collection of articles is intended for technical personnel of
 the Ministry of Communications USSR and its subordinate telecommunication
 establishments.

COVERAGE: The articles in this collection describe various new pieces of Soviet
 equipment used in electrical communication systems. These include:
 broadcast studio equipment, mobile audio amplifiers, transmitters, cable
 rectifiers, converters, rectifiers, and switchboards. No particulars are
 mentioned. References accompany the articles in footnotes.

Meter, Ch.M., and B.K. Barnovskiy, A.G. Gob. "Vychizh Clock" Unit
 This device provides telephone time service. The author describes its
 principle of operation, and the block diagram of the unit. 24

Meter, Ch. M. TP - 200 Line transformer with lightning arrestor.
 This power transformer is designed for operation with overhead
 transmission lines or wire broadcasting systems. The author describes
 the diagram and design of the transformer. 31

Philipov, V.M. Subscribers Telegraph Station of the AEM Low Capacity
 Systems

This station is designed for installation in oblast or rayon
 communication centers of the subscribers' automatic telegraph system.
 Its capacity is 10 subscribers' installations and 3 voice-frequency
 channels. 34

Dudo, V.M. VTS Lead-In Cable Cabinet Racks
 The author lists a variety of racks for connecting balanced cables
 of varying capacity. A table indicates the types of mounting plates
 for each rack. The author also describes circuit diagrams and opera-
 tions of the rack assemblies. 41

Philipov, V.M. VU-80 Lead-In Rack
 The author briefly describes the structure and operation of this rack,
 which serves for connection of communication cables
 and over-head lines, and for protection of communication equipment.
 45

Brodsky, M.V., G.A. Volkov, and V.D. Shobenkin. Constant Voltage
 Direct Current Rectifier with Triodes
 These converters provide power supply for communication equipment
 by means of a single battery. The article also describes converter
 operating principles, advantages and disadvantages of applica-
 tions and components. The results of experiments with 3 types of con-
 verters are shown in a table. 49

Solntsev, L.S. VTS-50/30 Rectifier Assembly
 The rectifier serves as a power supply for equipment used in intra-
 rayon and intra-oblast telecommunications and is dial telephone
 systems. The author gives the circuit diagram and design of the assembly.
 60

Krasnatenko, I.A. BDC-1 Combined Switchboard
 The switchboard connects local subscribers among themselves and connects
 local districts lines with local telephone network subscribers and with
 long distance lines with telephone apparatus. The article describes circuit
 diagrams of the automatic telephone system. The article describes circuit
 diagrams of various combinations of connections, structural details of
 the components and the assemblies as the whole. 86

Yagodzorik, M.M. BDC-4 Drilling Rig
 The rig drills the holes for overhead line poles. The author describes
 the functional diagram, design, and operation of the assembly. 93

AVAILABLE: Library of Congress

DRAFT: (b) 7

SHOSHESTVENSKAYA, Ye.M.

Preparation of arylhalomonosilanes. Zhur.ob.khim. 26 no.1:
231-232 Ja '56. (MLRA 9:5)
(Silane)

SOSHESHTVENSKAYA, Ye. M.

✓ 11855* (Russian.) Dependence of the Yields of Tetrasubstituted Alkyl and Aryl Monosilanes on the Size of the Charges and the Radii of the Fluosilicates. O zavimosti vydeleniya chetyrekhzamenchennykh alkil- i arilmonsilanov ot velichini zarядov i radijov kationov kremnelloforistorododnykh soed. G. V. Medoks and E. M. Sosheshtvenskaya. Zhurnal Obshchey Khimii, v. 27, Mar. 1957, p. 720-724.

Chem

A study of the interaction of fluosilicates of Li⁺, Na⁺, K⁺, and Rb⁺ with benzyl magnesium chloride and ethyl magnesium bromide. It was found that the yields of tetrabenzylsilanes and tetraethylsilanes are in a relationship of linear dependence on the radii of the cations. An analogous regularity was also shown during the reactions of benzyl magnesium chloride with fluosilicates of Ca, Sr, and Ba, although the increase of the charge of the cations causes a severe decrease in the yields of tetrasubstituted monosilane.

4E3d

4E2c

2 MMY

PM
for org.

CHACHANIDZE, G.D.; KARUMIDZE, Z.A.; KHARASHVILI, TS.G.; Prinimala
uchastiye: SHOSHIASHVILI, E.

Conversion reactions of mixed nitrate salts. Trudy Inst.prikl.
khim.i elektrokhim.AN Gruz.SSR 3:169-180 '62. (MIRA 16:1)
(Nitrates) (Ammonium nitrate)

PURTSELADZE, Kh.G.; TOPURIYA, Z.M.; CHKONIYA, T.K.; SHOSHIASHVILI, E.N.

Thermal dissociation of artificial manganese dioxide samples.
Trudy Inst.prikl.khim.i elektrokhim.AN Gruz.SSR 3:163-168 '62.
(MIRA 16:1)
(Manganese oxide—Thermal properties)

SHOSHIASHVILI, I.]

Shoshiashvili, I. "Data dealing with the study of the bioecology of diploid-maize in Georgia," Trudy In ta zashchity rasteniy (Akad. nauk Gruz. SSR), Vol. V, 1943, p. 225-48, (In Georgian, resume in Russian), - Bibliog. 41 items

SO: U-2024, 29 Oct 52, (Let'pis 'Zhurnal 'nykh St. tey, No. 16, 1949).

1. SHOSHIAS'VILI, I. I., KIRMELASHVILI, N. S.
2. USSR (600)
7. "Concerning the Question of the Harmfulness of the Peronospora of the Onion",
Trudy In-ta Zashchity Rasteniy AN Gruz. SSR (Works of the Institute of Plant
Protection, Acad Sci Georgian SSR), Vol 7, 1950, pp 179-188.
9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

SHOSHIASHVILI, I.I.; KIRMELASHVILI, N.S.

Contribution to the study of the downy mildew of onions
(Perenosporaceae) in Georgia [in Georgian with summary in
Russian]. Trudy Inst. zashch.rast. AN Gruz. SSR 9:197-211
'53. (MIRA 8:2)
(Georgia--Downy mildew)(Onions--Diseases and pests)

Country : USSR M
Category : CULTIVATED PLANTS. POTATOES. Vegetables. Cucurbits.

Abs. Jour. : REF ZHUR-BIOL., 21, 1958, NO. 959 80

Author : Shoshiashvili, L.I.

Institut. : All Georgian SSR, Inst. of Plant Protection

Title : Findings of a Study of Potato Wilt and Control
Measures in the Georgian SSR

Orig. Pub. : Tr. In-ta zashchity rast. AN GruzSSR, 1957, 12,
31-38

Abstract : Potato wilt is widespread throughout all the
districts of Georgia. The damage caused by it
reaches 64% in April sowings, 60% in June and
59.3% in July plantings. The summer sowing of
vernalized tubers reduces wilt and increases the
yield. The vernalization of spring plantings
lessens the intensity of infection through wilt
(especially in July) and boosts the harvest.
Regular watering (at least four times), fertiliza-
tion, as well as high sidedressing doses of mineral

Card: 1/2

21

DZHAMBURIYA, G.D.; MELITAURI, K.N.; KHANTADZE, Sh.A.; SHOSHIASHVILI, N.F.;
BARNAVELI, T.V. [translator]; BERIDZE, V.V., red.; BAKRADZE, D.S.,
red.izd-va; DZHAPARIDZE, N.A., tekhn.red.

[Vardzia; guidebook] Vardzia; putevoditel'. Tbilisi, Izd-vo Akad.
nauk Gruzinskoi SSR, 1957. 93 p. (MIRA 11:3)
(Georgia--Description and travel--Guidebooks)
(Kura Valley--Monasteries)

SHOSHICHA S.V.

CHISTOVICH, G.N.; BLYUMENFEL'D, O.M.; GORODEL'SKAYA, E.A.; PETUKHOVA, R.N.;
POLOZOVA, T.V.; TERENT'YEVA, T.A.; SHILOVA, N.V.; SHOSHICHA, S.V.

Individual properties of staphylococcus cultures. Zhur.mikrobiol.
epid.i immun. no.7:101 J1 '54. (MLRA 7:9)

1. Iz kafedry mikrobiologii I Leningradskogo meditsinskogo instituta
im. Pavlova.
(STAPHYLOCOCCUS)

SHOSHIN, A. A.

Improvement and Washing of Saline Soils of the Kura and Araks Delta
Sots. S. Kh. Azerbaydzhana, No 1, 1954, pp 5-9

A considerable part of the saline soils of the Kura and Araks Depression is characterized by the prevalence of chlorides of sodium and magnesium. In order to improve these soils it is necessary not only to remove the salts, but also to prevent their "migration" by providing drainage of the descending currents of water. This must be done to secure the ground-water regime and to prevent resalting of the soil. (RZhBiol, No 2, 1955)

SO: Sum. No. 639, 2 Sep 55

SHOSHIN, A.A., otv. red.; BYAKOV, V.P., red.; IGNAT'YEV, Ye.I., red.;
KELLER, A.A., red.; YAKOVLEV, A.V., red.

[Materials of the Commission on Medical Geography] Materialy
Komissii meditsinskoi geografii. Leningrad. Pt.1. 1961. 76 p.
(MIRA 15:1)

1. Geograficheskoye obshchestvo SSSR.
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.; IGNAT'YEV, Ye.I.; MARKOVIN, A.P.; BYAKOV, V.P.

Present-day status of medical geography and the prospects for its development. Mat.Kom.med.geog.Geog.ob-va SSSR pt.1:14-22 '61.

(MTRA 15:10)

(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Basic problems in and the methods for the medicogeographical study
of a locality. Mat.Kom.med.geog.Geog.ob-va SSSR pt.1:22-40 '61.
(MIRA 15:10)
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.; IGNAT'YEV, Ye.I.; MARKOVIN, A.P.; BYAKOV, V.P.

Nature, objectives and methods of medical geography. Geog. sbor.
no.14:5-13 '61. (MIRA 15:1)
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Main objectives and methods for studying man's diseases (nosogeography).
Geog. sbor. no.14:130-144 '61. (MIRA 15:1)
(MEDICAL GEOGRAPHY)

SHOSHIN, A.A.

Main problems in medical cartography. Geog. shor. no.14:174-189
'61. (MIRA 15:1)
(MEDICAL GEOGRAPHY MAPS)

SHOSHIN, Aleksey Alekseyevich; IGNAT'YEV, Ye.I., otv.red.; PAVLOVSKIY, Ye.N.,
akademik, glavnnyy red.; VASIL'YEVA, Z.A., red.izd-va; SOROKINA, V.A.,
tekhn.red.

[Principles of medical geography] Osnovy meditsinskoi geografii.
Moskva, Izd-vo Akad. nauk SSSR, 1962, 146 p. (Geograficheskoe
obshchestvo SSSR. Zapiski, vol.22) (MIRA 15:12)

1. Prezident Geograficheskogo obshchestva SSSR (for Pavlovskiy).
(Medical geography)

IGNAT'YEV, Ye.l., ovt. red.; SHOJIN, A.A., red.; BYAKOV, V.P.,
red.; VERSHENSKIY, B.V., red.; YAKOVLEV, A.V., red.;
KHLEBOVICH, I.A., red.

[Medical geography; results and prospects] Meditsinskaia
geografiiia; itogi, perspektivy. Irkutsk, 1964. 208 p.
(MIRA 17:7)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut
geografii Sibiri i Dal'nego Vostoka.

DERYAPA, Nikolay Romanovich; SHOSHIN, A.A., otv. red.

[Nature of the Antarctic and human acclimatization]
Priroda Antarkiti i akklimatizatsiya cheloveka. Mo-
skva, Nauka, 1965. 154 p. (MIRA 13:7)

DERYAPA, Nikolay Romanovich; SHOSHIN, A.A., otv. red.

[Nature of Antarctica and the acclimatization of man.]
Priroda Antarktiki i akklimatizatsiya cheloveka. Moskva,
Iauka, 1965. 154 p. (Geograficheskoe oshchchestvo SSSR,
Zapiski. Novaya seriya, vol.24) (MIRA 18:8)

SHOSHIN, A.A.

State and problems of the medicogeographical study of foreign
countries. Vop geog. no.68:8-13 '65.

(MIRA 18:12.)

SHOSHIN, A.F.

Method of forecasting the filling intensity of Rybinsk Reservoir.
Sbor. rab. Ryb. gidromet. obser. no.1:131-158 '59.

(MIRA 14:7)

(Rybinsk Reservoir--Hydrography)

FEDORENKO, V.A.; SHOSHIN, A.I.; KULACHKOV, V.I., inzh., red.;
YURKEVICH, M.P., inzh., red.izd-va; SHCHETININA, L.V.,
tekhn. red.

[Manual for machine drawing] Spravochnik po mashino-
stroitel'nomu chercheniiu. 7. izd., ispr. i dop. Moskva,
Mashgiz, 1963. 280 p. (MIRA 16:8)
(Machinery--Drawing)

SHOSHIN, B.G.

[Rabies] Beshenstvo. Moskva, Medgiz, 1952. 14 p.

(MLRA 6:7)
(Hydrophobia)

SHOSHIN, B. G.

Rabies. Fel'dsher & akush., Moskva no. 5:34-39 May 1952. (CLML 22:3)

SHOSHIN, B. M.

Insane - Hospitals

Cut-of-town psychiatric institutions; discussion. Zhur. nevr. i psikh. 52 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

SEOSHIN, R.G.

[Rabies and its control] Beshenstvo i bor'ba s nim. Moskva, Medgiz,
1954. 25 p. (Rabies) (MLRA 8:3)

SHOSHIN, B.G., vrach (Moskva)

Psychotic states in various diseases. Med. sestra no.1:10-15 Ja '55.
(PSYCHOSES, complications
in various dis.) (MLRA 8:3)

SHOSHIN, B.G. (Moskva)

Care of sick with acute psychosis. Med.sestra 15 no.6:20-23 Je '56.
(PSYCHIATRIC NURSING) (MLRA 9:8)

SPERGIN, I. A.

"Modern Laboratory Apparatus," a report presented at the Conference of Commission on Astronomical Instruments Construction of the Astronomical Council, AS USSR, 17-18 Feb 56.

Sum. No. 1347, 31 Aug 56

S. VIM, T. I., Prof.

"New achievements in optical-mechanical measurement" (Section III)

report submitted for Measurement and Automation, Scientific Society for (Hungarian)
Intl Measurement Conference - Budapest, Hungary, 24-30 Nov 58

SHOSHIN, I.A.
KRICHESKIY, Yevgeniy Samoylovich; FEDOROVICH, Leonid Grigor'yevich; FETISOV,
Vladimir Fedorovich; VERTSNER, V.N., kand. fiz.-mat. nauk, retsenzent;
KRUGER, M.Ya., inzh., retsenzent; SHOSHIN, I.A., inzh., retsenzent;
SOBOLEV, S.F., inzh., retsenzent; DULIN, V.N., kand. tekhn. nauk,
red.; BOGOMOLOVA, M.F., red. izd-va; PUKHLIKOVA, N.A., tekhn. red.

[Electrical equipment in optical and mechanical instruments] Elektro-
oborudovaniye optiko-mekhanicheskikh priborov. Moskva, Gos. izd-vo
obor. promyshl., 1958. 467 p. (MIRA 11:7)

(Electronic apparatus and appliances)
(Electric apparatus and appliances)

Grad. Ch. in Eng., M. Eng. in Eng.

Land Tech Sci

Dissertation: "Investigation of the Operation of an Automobile-Type Engine
on Generator Gas."

27/3/50

Moscow Forestry Inst

SO Vecheryaya Moskva
Sum 71

PERFILOV, M.A.; SHOSHIN, N.A.; NOVOSEL'TSEV, N.V., red.; MOROZOV, Yu.V.,
red. izd=va; BACHURINA, A.M., tekhn. red.

[LTA-TSNIIME felling and skidding machine] Valochno-trelevochnaia
mashina LTA-TsNIIME. [Leningrad] M-vo lesnoi promyshl. SSSR [1957]
6 p. (MIRA 11:10)

1. Moscow. Vsesoyuznaya promyshlennaya vystavka.
(Lumbering—Machinery)

...a H...a H...a, A...A

PERFILOV, M.A.; SHOSHIN, N.A.

Tree-felling and trailing machines. Biul. tekhn.-ekon. inform. no.1:
57-58 '57. (MIRA 11:4)
(Lumbering--Machinery)

BODNYA, M.D.; SHOSHIN, N.V.

Mechanization of the loading of pigment pastes into pigment-grinding machines. Lakokras.mat.i ikh prim. no.3:75-76 '60.
(MIRA 14:4)

1. Tashkentskiy lakokrasochnyy zavod.
(Tashkent—Pigments) (Loading and unloading)

S/056/62/042/006/006/047
B104/B102

AUTHORS: Kulikov, O. F., Shoshin, P. B.

TITLE: An experimental investigation of the dimensions of an electron bunch during special operating conditions of a synchrotron

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1461 - 1463

TEXT: The variation in the amplitude of electron oscillation of a bunch during the increasing and the decreasing part of the magnetic cycle was investigated with the C-25 (S-25) synchrotron of the FIAN im. P. N. Lebedeva (FIAN imeni P. N. Lebedeva). The maximum electron energy was 274 Mev. The duration of the hf pulse fed to the synchrotron resonator and the period that the electron was within the accelerating chamber were $1\frac{1}{2}$ times those under normal conditions. The electron beam was photographed with an CKL-1 (SKS-1) high-speed cinecamera. The intensity of the bunch luminescence was determined from bunch photographs by means of an M-4 (MF-4) microphotometer. The amplitudes of radial oscillations of the bunch during the de-

Card 1/2

SEGOLEV, I.D.; TIGHERBAEV, V.A.; ELIMOV, I.N., prof., retsentent;

[Planning in research institutes and design offices] Planirovaniye v nauchno-issledovatel'skikh institutakh i konstruktorskikh biuro. Moscow, Mashinostroenie, 1961. 171 p.
(MIFA 17:9)

S/137/61/030/007/050/072
A060/A101

AUTHORS: Zhukovskiy, B. D.; Fomichev, I. A.; Manevich, F. D.; Shoshin,
V. A.

TITLE: Present state of theory and direction of development of the process
of forming pipe stock on continuous pipe molding mills

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 38, abstract 7D303
("Tr. Ukr. n.-i. trubn. in-ta", 1959, no. 2, 136-146)

TEXT: The existing methods of molding pipe stock on continuous pipe-molding
mills by means of 2 or 4 rolls (with radius decreasing along the pass, 2 radii,
one radius with flat central part) as well as the possibility of applying each of
these methods in the molding of thin-walled and thick-walled, small diameter and
large diameter pipes, are analyzed. The effect of neighboring stands on the
process of skelp deformation, the rise of zones in the contactless deformation of
skelp, leading to an elongation in skelp edges and the possibility of the appear-
ance of corrugations or even loss of stability of the profile are considered.
It is recommended to set up roll or continuous conduits between molding stands.

Card 1/2

Present state of theory and direction ...

S/137/61/000/007/050/072
A060/A101

Experiments are reported regarding tests of molding with conduits of pipes 30 x 0.3 and 152 x 3.25 mm. Bibliography contains 9 names.

V. Tsirul'nikov

[Abstracter's note: Complete translation]

Card 2/2

S/123/62/000/013/017/021
A004/A101

AUTHORS: Fomichev, I.A., Shoshin, V. A.

TITLE: Longitudinal deformations of the strip in continuous bending into pipe blanks

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1962, 25-26, abstract 13V99. (In collection: "Proiz-vo trub". No. 6, Khar'kov, Metallurgizdat, 1962, 102-110)

TEXT: The authors report on investigations carried out to study the profiling process of strip 95 mm wide with a thickness $h = 1, 1.25, 1.5$ and 1.8 mm into pipes 30 mm in diameter on a multiple roller-pair profiling and bending machine, to elucidate the mechanism of wave formation on the edges. The longitudinal elongations of the edges were measured with wire tensometers and by the marking method. It was found that, in front of the stand, the edge stretches evenly at the start (beginning with a distance up to the stand axis $l = 270 - 100$ mm), then abruptly ($l = 150-100$ mm), reaching its maximum at $l = 80-40$ mm, which amounts to 0.3-0.8% of the relative deformation depending on h and the number of the stand, after which an abrupt contraction takes place, which ends behind the stand ($l = 20-40$ mm).

Card 1/2

Longitudinal deformations of the...

S/123/62/000/013/017/021
A004/A101

The load and residual elongations grow with an increase of h . The longitudinal deformations over the width of the strip were measured with tensometers (in the middle and at a distance of 26 and 42.5 mm from the center). A graph has been plotted showing the changes in longitudinal deformations in various points over the strip width in sections in front of the stand $l = 240$ and behind the stand $l = 120$ mm. Stress vectors have been obtained for the strip cross section shaped into an arc of 60.3 mm radius for $l = 20$ mm and, using the conditions of the tension diagram, the stress distribution diagram was plotted. Tensile stresses are acting on the middle of the strip and on the edges, while the intermediate points (between the middle and the edges) are affected by compression stresses. The origination of waves is explained by the interaction of the previously residually elongated edges with the middle part of the strip, when the strip is passing the zone of contraction of the edges which causes the strip to lose its resistance to compression. To increase the resistance of the edges the authors recommend: reducing the edge bending radius, using additional supports for the edges (rollers and wires) increasing the roller diameter and improving the contact of the strip with the gages over its whole width. There are 6 figures and 4 references.

[Abstracter's note: Complete translation]

✓
Yu. Semenenko

Card 2/2

MANEVICH, F.D., kand. in eng., inzh. in ch., Ph.D., inzh.; SHURGIN, V.A., inzh.;
RYEAKOV, N.G., inzh.; KALINOVATOV, Yu.F., inzh.

Effect of the reduction of pipe blanks during forming for the
induction welding process. Zhurnal 25 no.2:640-641 S '65.
(ZIRK 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy trubnyy institut
i Leningradskiy zavod "Trubostal".

SHOSHIN, Yu. S.

SHOSHIN Yu. S. - "Investigation fo the operation of a vortex-chamber engine with pressure feed". Khar'kov, 1955. Min Higher Education Ukrainian SSR. Khar'kov Polytechnic Inst imeni V. I. Lenin. (Dissertation for the degree of Candidate of Technical Science).

SO: Knizhnaya Letopis' No. 46, 12 November 1955. Moscow

SHOSHIN, Yu.S., kandidat tekhnichnikh nauk.

Calculation of fuel consumption by engines by testing them in
stands. Mekh. sili'. hosp. 8 no.9:25-26 S '57. (MLBA 10:9)
(Engines--Testing) (Motor fuels)

SHOSHIN, Yu.S., kand. tekhn. nauk.

Method for investigating heat emission during the burning of fuel
in compression-ignition engines. Energomashinostroenie 4 no.1:
31-32 Ja '58. (MIRA 11:1)
(Heat--Transmission) (Gas and oil engines)

SHOSHIN, Yu.S. [Shoshyn, IU. S.], kand. tekhn. nauk

Automatic safety device for oil engines. Mekh. sil'. hosp. 9
no. 7:21 Jl '58. (MIRA 11:8)
(Gas and oil engines--Safety appliances)

1. SMIRNOV, L. V.; SHOSYINA, I. A.
2. USSR (600)
4. Molecules
7. Dichroism as a means for investigating anisotropy of molecules. Trudy Len. Inst. pishch. prom. 1, 1949.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Unclassified.

ROTINYAN, A.L.; SHOSHINA, I.A.

Mechanism of the reaction of cobalt hydroxide precipitation.
Izv. vys. ucheb. zav.; tsvet. met. 7 no.6:56-63 '64.

(MIRA 18:3)

1. Leningradskiy tekhnologicheskiy institut, kafedra elektrorhimi-
cheskikh proizvodstv.

ROTINYAN, A.L.; SHOSHINA, I.A.

Simultaneous discharge of ions of the base metal and impurities
during the electrolytic refining of nickel from a chloride solution.
Izv. vys. ucheb. zav.; tsvet. met. 4 no.3:50-56 '61. (MIRA 15:1)

1. Leningradskiy tekhnologicheskiy institut, kafedra tekhnologii
elektrokhimicheskikh proizvodstv.

(Nickel--Electrometallurgy)
(Ion sources)

ROTINYAN, A.L.; ZEL'DES, V.Ya.; SHOSHINA, I.A.

Carbon in electrolytic nickel. Zhur.prikl.khim. 35 no.7:1542-
1546 Jl '62. (MIRA 15:8)
(Nickel plating) (Carbon--Analysis)

ROBINYAN, A.L.; SHOSHINA, I.A.

Purification of electrolytes by an electrochemical method.
Zhur. prikl. khim. 37 no.9:2052-2055 S '64.

(MIRA 17:10)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.